REMARKS

Claims 36-41 remain pending in the application.

Reexamination and reconsideration are respectfully requested in view of the following Remarks.

35 U.S.C. § 102 and 103

The Office Action rejects; claims 36, 38 and 39 under 35 U.S.C. § 102 over Kim et al. U.S. Patent 5,969,779 ("Kim"); claims 37, 40 and 41 under 35 U.S.C. § 103 over Kim in view of Takemura U.S. Patent 5,757,444 ("Takemura") and Ito et al. U.S. Patent 5,936685 ("Ito"); claims 36, 38 and 39 under 35 U.S.C. § 103 over Kawate U.S. Patent 4,368,523 ("Kawate") in view of Wakai et al. U.S. Patent 5,327,001 ("Wakai"); and claims 37, 40 and 41 under 35 U.S.C. § 103 over Kawate and Wakai .in view of Takemura and Ito.

Applicants respectfully traverse all of these rejections and submit that all of the claims 36-41 are patentable over the cited art for at least the following reasons.

Rejections Based on Kim

Claim 36

Among other things, in the TFT substrate of claim 36, first and second signal lines are both covered by the gate insulating layer, and the first and second signal lines are adapted to receive a same gate signal.

Applicants respectfully submit that Kim does not disclose this feature.

The Office Action argues that <u>Kim</u>'s gate line (G_x) corresponds to the first signal line, and repair line 100/200 corresponds to the recited second signal line.

However, Kim does not disclose anywhere that gate line G_x and repair line 100/200 are adapted to receive a same gate signal.

The Office Action stats that repair line 100/200 <u>inherently</u> is adapted to receive the same gate signal as gate line G_x .

Applicants respectfully disagree.

The Examiner finds this inherency in that repair line 100/200 has a portion that extends in parallel to gate line G_x .

Respectfully, so what?

Applicants traverse any suggestion that the fact that two lines have portions which extend in parallel to each other somehow *inherently* means that they are adapted to receive the same signal. In fact, Applicants respectfully submit that this is plainly incorrect on its very face. Applicants also invite the Examiner to review M.P.E.P. § 2112 (IV):

EXAMINER MUST PROVIDE RATIONALE OR EVIDENCE TENDING TO SHOW INHERENCY

The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993) (reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981). "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.' "In re Robertson, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (citations omitted).

Accordingly, for at least these reasons, Applicants respectfully submit that claim 36 is patentable over <u>Kim</u>.

Claims 38 and 39

Claims 38 and 39 depend from claim 36 and are deemed patentable for at least the reasons set forth above with respect to claim 36, and for the following additional reasons.

The Office Action is completely silent about where <u>Kim</u> supposedly discloses the features of claims 38 and 39. The Office Action fails to cite a single drawings or a single line of text in <u>Kim</u> that supposedly discloses these features.

Applicants respectfully submit that such a rejection, without any explanation whatsoever, is improper and must be withdrawn.

Furthermore, the undersigned attorney respectfully submits that he does not see where such features are disclosed by <u>Kim</u>, and therefore believes they are not disclosed by <u>Kim</u>.

Accordingly, for at least these additional reasons, Applicants respectfully submit that claims 38 and 39 are patentable over <u>Kim</u>.

Claims 37, 40 and 41

Claims 37, 40 and 41 depend from claim 36. Applicants respectfully submit that <u>Takemura</u> and <u>Ito</u> do not remedy the shortcoming of <u>Kim</u> as forth above with respect to claim 36. Therefore, claims 37, 40 and 41 are deemed patentable for at least the reasons set forth above with respect to claim 36, and for the following additional reasons.

35 U.S.C. § 103(c) provides that a reference which qualifies as prior art only under 35 U.S.C. § 102(e) shall not preclude patentability where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person.

The present applications U.S. priority date is July 16, 1997. <u>Kim</u> was published on October 19, 1999. To the extent that <u>Kim</u> is prior art at all for this patent application, <u>Kim</u> only qualifies as prior art under 35 U.S.C. § 102(e). Meanwhile, both <u>Kim</u> and the present application were at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to Samsung Electronics Co., Ltd.

Accordingly, Applicants respectfully submit that the rejection of claims 37, 40 and 41 under 35 U.S.C. § 103 based on <u>Kim</u> is improper, and therefore respectfully request that it be withdrawn.

Rejections Based on Kawate and Wakai

Claim 36

Among other things, the TFT substrate of claim 36 includes: an insulating substrate; a first signal line including a gate electrode and formed on the insulating substrate; a second signal line formed on the insulating substrate; a gate insulating layer covering the first and the second signal lines; and a semiconductor layer formed on the gate insulating layer.

The Office Action states, totally contradictorily, that: (1) <u>Kawate</u> inherently discloses these features; and (2) that it would have been obvious to one of ordinary kill in the art "to employ basic/inherent elements."

Applicants respectfully request that the Examiner please clearly articulate the basis of his rejection of claim 36. Is the Examiner arguing that the features are already present in <u>Kawate</u>, inherently? Or is the Examiner arguing that that they are not present in <u>Kawate</u>, but that it would have been obvious to have modified <u>Kawate</u> to include such features? Or is the Examiner arguing something else altogether?

Applicants should not be forced to guess the reasoning of the Examiner's rejections.

Applicants respectfully submit that these features are absolutely not present in

<u>Kawate</u> – inherently or otherwise. Applicants also respectfully submit that <u>Kawate</u> cannot properly be modified to include such features.

<u>Kawate</u> does not pertain to any TFT substrate at all. Instead, <u>Kawate</u> – which dates from the 1970s – discloses a display device wherein the memories for all of the display elements are embodied in a separate integrated circuit (IC) 100 fabricated in a <u>semiconductor wafer</u> (see col. 1, lines 22-24, and 53-59).

So none of the above recited features of claim 36 are disclosed – inherently or otherwise – in <u>Kawate</u>.

Furthermore, the Office Action does not propose any motivation for modifying Kawate to include the above-recited features except that they are "common and known in TFT (Active-matrix)-LCD devices." However, as noted above, Kawate does not disclose or pertain to a TFT-LCD device! Indeed, as Kawate discloses a semiconductor IC for a display device, and discloses a repair method for such an IC motivated by the large size required by such an IC, it would be improper to attempt to modify Kawate to include the above-recited features of claim 36 as this would "RENDER [Kawate] UNSATISFACTORY FOR ITS INTENDED PURPOSE" and "CHANGE THE PRINCIPLE OF OPERATION OF" Kawate, contrary to M.P.E.P. § 2143.01 (V) & (VI).

In any event, the Office Action does cite any support or teaching in the prior art for the supposed motivation to modify <u>Kawate</u>, again improperly under M.P.E.P. § 2143.01(I) ("Obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so").

Accordingly, for at least these reasons, Applicants respectfully submit that claim 36 is patentable over the cited prior art.

Claims 38 and 39

Claims 38 and 39 depend from claim 36 and are deemed patentable for at least the reasons set forth above with respect to claim 36.

Claims 37, 40 and 41

Claims 37, 40 and 41 depend from claim 36. Applicants respectfully submit that <u>Takemura</u> and <u>Ito</u> do not remedy the shortcoming of <u>Kawate</u> and <u>Wakai</u> as forth above with respect to claim 36. Therefore, claims 37, 40 and 41 are deemed patentable for at least the reasons set forth above with respect to claim 36, and for the following additional reasons.

The Office Action does not explain why it would supposedly have been obvious to have modified Kawate's device to include the features allegedly disclosed by <u>Takemura</u> and <u>Ito</u>. In particular, the Office Action fails to explain why it supposedly would have been obvious to have modified <u>Kawate</u>'s non-TFT device, with isolated IC memory device, to have had a pixel electrode of the liquid crystal display overlap the "first and second signal lines" of <u>Kawate</u>'s IC array, separated from the LC portion by ceiling 102.

Accordingly, for at least these reasons, Applicants respectfully submit that claims 37, 40 and 41 are patentable over the cited prior art.

CONCLUSION

In view of the foregoing explanations, Applicants respectfully request that the Examiner reconsider and reexamine the present application, allow claims 36-41, and pass the application to issue. In the event that there are any outstanding matters remaining in the present application, the Examiner is invited to contact Kenneth D. Springer (Reg. No. 39,843) at (571) 283-0720 to discuss these matters.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No.

50-0238 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17, particularly extension of time fees.

Respectfully submitted,

VOLENTINE & WHITT

Date: 1 June 2007

Kenneth D. Springer

Registration No. 39,843

VOLENTINE & WHITT One Freedom Square Suite 1260 11951 Freedom Drive Reston, Virginia 20190

Telephone No.: (571) 283-0720 Facsimile No.: (571) 283-0740